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Amendment dated
Reply to Office Action of April 27, 2010

REMARKS

In response to the Final Office Action mailed July 31, 2006 and the Decision on Appeal mailed April 27, 2010, Applicant respectfully requests reconsideration. To further the prosecution of this application, amendments have been made in the claims, and each of the rejections set forth in the Office Action has been carefully considered and is addressed below. The claims as presented below are believed to be in condition for allowance.

Claims 1 and 3-34 were previously pending in this application. Claims 1, 5-9, 11, 13, 17 and 19-28 are amended. Claims 3-4, 10, 12, 14-16, 18 and 29-34 are cancelled. No claims are added. As a result, claims 1, 5-9, 11, 13, 17 and 19-28 remain pending for examination, with claims 1 and 13 being independent. No new matter has been added.

Claim Rejections Under 35 U.S.C. §101, First Paragraph

Each of independent claims 1 and 13 is rejected under 35 U.S.C. §101 for purportedly being directed to non-statutory subject matter. Specifically, the Office Action contends that the computer system to which claim 1 was formerly directed "does not include any hardware components" and does not produce any tangible result, and that the computer-implemented method to which claim 13 was formerly directed does not produce any tangible result.

Claim 1 is amended to recite at least one computer-readable storage medium having instructions recorded thereon which, when executed, perform a method of managing a file system filter. MPEP §2106.01 explicitly states that the subject matter of amended claim 1 is patent-eligible. Specifically, MPEP §2106.01 states (emphasis added):

> Descriptive material can be categorized as either "functional descriptive material" or "non-functional descriptive material." In this context, "functional descriptive material" consists of data structures and computer programs which impart functionality when employed as a computer component. [...By contrast,] "[n]on-functional descriptive material" includes but is not limited to music, literary works and a compilation or mere arrangement of data.
>
> [...] *When functional descriptive material is recorded on some computer-*

> *readable medium, it becomes structurally and functionally interrelated to*
> *the medium and will be statutory in most cases since use of technology*
> *permits the function of the descriptive material to be realized.*

As claim 1 is directed to at least one computer-readable storage medium having stored thereon instructions that, when executed, perform a method (i.e., functional descriptive material), amended claim 1 recites subject matter which is patent-eligible under §101.

Amended claim 13 is directed to a computer comprising at least one processor programmed to perform recited acts. As the Office Action concedes, a computer comprising at least one processor programmed to perform recited acts is statutory under §101.

In view of the foregoing, Applicant respectfully requests withdrawal of the rejection of each of claims 1 and 13, and of the claims that depend respectively therefrom, under 35 U.S.C. §101 for purportedly being directed to non-statutory subject matter.

Claim Rejections Under 35 U.S.C. §102(e)

Each of claims 1 and 13 is rejected under 35 U.S.C. §102(e) as purportedly being anticipated by U.S. Patent Publication No. 2001/0020245 to Golds et al. ("Golds"). As presented herein, each of claims 1 and 13 patentably distinguishes over the prior art of record.

A.   Rejection of Claim 1

Amended claim 1 recites at least one computer-readable storage medium having instructions recorded thereon which, when executed, perform a method of managing a file system. The method comprises: identifying an integer altitude value of a minifilter; and mapping an altitude, defined by the integer altitude value, of the minifilter to one of a plurality of legacy filter order groups. The mapping comprises: determining an altitude range associated with at least a portion of the legacy filter order groups; determining whether any of the altitude ranges encompasses the integer altitude value of the minifilter; if an altitude range of a legacy filter order group encompasses the integer altitude value of the minifilter, then inserting the minifilter into the legacy filter order group; and if

no altitude range of a legacy filter order group encompasses the integer altitude value of the minifilter, then creating a new filter order group and inserting the minifilter into the new filter order group.

Amended claim 1 patentably distinguishes over the prior art of record, as Golds does not disclose or suggest creating a new filter order group, if no altitude range of a legacy filter order group encompasses an integer altitude value of a minifilter, and inserting the minifilter into the new filter order group.

Golds discloses techniques for arranging software modules, such as filter drivers, into an order for execution (Abstract). Unique values assigned to each module determines its position relative to other modules in a stack or other ordered arrangement, thereby fixing the order in which the modules are executed (Abstract). Modules may be classified and assigned values in specified ranges according to module type, so that modules of the same type can be placed in a range (Abstract). Golds discloses that arranging modules into a fixed order for execution can eliminate bugs and other problems arising from haphazard arrangements, and also simplify testing ([¶0006]).

With reference to FIGS. 5-6, Golds discloses a process for attaching filter drivers into an ordered list ([¶0042]). In the process, when a filter manager is requested to install a filter driver, it determines the "altitude" (i.e., unique assigned value) of the filter driver ([¶0042]). Based on the filter driver's altitude, the filter manager inserts the filter driver into an ordered list relative to other modules in the list, so that the new filter driver is thereafter called in an order relative to the other modules ([¶0042]). Golds also discloses that a filter driver may be attached to a pre-existing/legacy group of filter drivers if its altitude value is within the range associated with the group ([¶¶0035]–[0036]).

Golds is simply silent, however, regarding any processing that occurs if there is no altitude range of a legacy filter order group which encompasses an integer altitude value of a minifilter. Golds thus necessarily does not disclose or suggest creating a new filter order group if there is no altitude range of a legacy filter order group which encompasses an integer altitude value of a minifilter, and inserting the minifilter into the new filter order group, as recited by amended claim 1.

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As Golds fails to satisfy all of the limitations recited by amended claim 1, amended claim 1 patentably distinguishes over Golds, such that the rejection of claim 1 under 35 U.S.C. §102(e) as purportedly being anticipated by Golds should be withdrawn.

Claims 5-9 and 11 depend from claim 1 and are allowable for at least the same reasons.

B.   Rejection of Claim 13

Amended claim 13 recites a computer operable to manage a file system filter. The computer comprises at least one processor programmed to: load a minifilter to a file system, the file system comprising at least one filter manager frame; determine an integer altitude value associated with the minifilter; determine an altitude range $[L, H]$ associated with each at least one filter manager frame, wherein L is the lower boundary value of the altitude range and H is the upper boundary value of the altitude range; determine whether any altitude range associated with the at least one filter manager frame encompasses the integer altitude value associated with the minifilter; if an altitude range associated with a filter manager frame encompasses the integer altitude value associated with the minifilter, such that $L<X<H$ where X is the altitude of the minifilter, then insert the minifilter into the filter manager frame; and if no altitude range associated with the minifilter, then: determine a lower altitude range $[L_1, H_1]$ and a higher altitude range $[L_2, H_2]$ closest to the integer altitude value X, such that X is greater than the upper boundary value of the lower altitude range H_1 and less than the lower boundary value of the higher altitude range L_2; insert the minifilter into the filter manager frame having the higher altitude range; and adjust the higher altitude range to $[X, H_2]$.

Amended claim 13 patentably distinguishes over Golds. As discussed above in relation to the rejection of claim 1, Golds says nothing about any processing that is performed if there is no altitude range of a filter manager frame that encompasses an integer altitude value of a minifilter. Golds thus necessarily says nothing about, if no altitude range associated with a filter manager frame encompasses an integer altitude value associated with a minifilter, determining a lower altitude range and a higher altitude range closest to the integer altitude value X, such that X is greater than the upper boundary value of the lower altitude range and less than the lower boundary

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value of the higher altitude range; inserting the minifilter into the filter manager frame having the higher altitude range; and adjusting the higher altitude range, as recited by amended claim 13.

Claim 13 thus patentably distinguishes over Golds, such that the rejection of claim 13 under 35 U.S.C. §102(e) as purportedly being anticipated by Golds should be withdrawn.

Claims 17 and 19-28 depend from claim 13 and are allowable for at least the same reasons.

CONCLUSION

A Notice of Allowance is respectfully requested. The Examiner is requested to call the undersigned at the telephone number listed below if this communication does not place the case in condition for allowance.

If this response is not considered timely filed and if a request for an extension of time is otherwise absent, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, the Director is hereby authorized to charge any deficiency or credit any overpayment in the fees filed, asserted to be filed or which should have been filed herewith to our Deposit Account No. 23/2825, under Docket No. M1103.70664US00.

Dated: June 24, 2010

Respectfully submitted,

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